STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0049000; AI 51898; PER20050001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. **THE APPLICANT IS:** Total Environmental Solutions, Inc.
Audubon Village
1824 Ryder Drive
Baton Rouge, LA 70808

II. **PREPARED BY:** Todd Franklin

DATE PREPARED: December 8, 2005

III. **PERMIT ACTION:** reissue LPDES permit LA0049000, AI 51898; PER20050001

LPDES application received: September 15, 2005

LPDES permit issued: April 1, 2001
LPDES permit expired: March 31, 2006
EPA has not retained enforcement authority.

IV. **FACILITY INFORMATION:**

A. The application is for the discharge of treated sanitary wastewater from a privately owned treatment works serving the Audubon Village Subdivision.

B. The permit application does not indicate the receipt of industrial wastewater.

C. The facility is located near the intersection of Crossover Road and Dunn Road, northeast of Watson and Denham Springs, Livingston Parish.

D. The treatment facility consists of facultative lagoon. Disinfection is by chlorination.

E. Outfall 001

Discharge Location: Latitude 30° 31' 39" North
Longitude 90° 54' 14" West

Description: treated sanitary wastewater

Average Expected Flow: 190 homes @ 400 GPD each = 0.076 MGD

Calculations for gallons per day were based upon figures obtained from Chapter 15 of the State of Louisiana Sanitary Code, Department of Health and Hospitals, Office of Public Health.

Type of Flow Measurement which the facility is currently using:

V-Notch Weir and/or Bucket and Stopwatch

V. RECEIVING WATERS:

The discharge is into an unnamed ditch; thence into West Colyell Creek in segment 040305 of the Lake Pontchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 040305 of the Lake Pontchartrain Basin are as *indicated in the table below*[1/]:

Overall Degree of Support for Segment	Degree of Support of Each Use						
Partial	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Not Supported	Full	Not Supported	N/A	N/A	N/A	N/A

[1/]The designated uses and degree of support for Segment 040305 of the Lake Pontchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 040305 of the Lake Pontchartrain Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 21, 2005, from Watson (FWS) to Gautreaux (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the *existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible* for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for

a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mr. Todd Franklin
Water & Wastewater Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 040305, Colyell Creek System, is listed on LDEQ's Final 2004 303(d) List as impaired for nutrients, organic enrichment/low DO, pathogen indicators, phosphorus, and mercury. To date no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL. Until completion of TMDLs for the Lake Pontchartrain Basin, those suspected causes for impairment which are not directly attributed to the sanitary wastewater point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard were also eliminated.

Nutrients and Organic Enrichment / Low DO

To protect against the potential for discharges of oxygen consuming pollutants that could cause instream DO problems and for discharges of organic materials and nutrients at levels exceeding state water quality standards, BOD_5 limits have been established in the permit.

Pathogen Indicators

To protect against the development of pathogenic organisms in the receiving waterbodies, fecal coliform limits have been established in the general permit.

Phosphorus and Mercury

Based on the size and nature of the discharge, this Department believes that there is little potential for the facility to discharge levels of phosphorus or mercury that would cause or contribute to the impairments found in this subsegment. Therefore, requirements for these parameters will not be placed into this permit.

Final Effluent Limits:

OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD_5	N/A	10 mg/l	15 mg/l	Limits are set in accordance with the Lake Pontchartrain Basin Segment 0403 Areawide Policy for facilities of this treatment type and size.
TSS	N/A	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.

*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD_5 and TSS in terms of concentration.

Other Effluent Limitations:

1) **Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0049000: Issued: April 1, 2001
Expired: March 31, 2006

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow	Report	Report	1/week	Measure
BOD_5	10 mg/l	15 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
TRC	Report	Report	2/month	Grab
Fecal Coliform Colonies/100 ml	200	400	2/month	Grab
pH	Range (6.0 su – 9.0 su)		2/month	Grab

The TRC reporting requirement has been removed from this draft permit. Calculations based on the last two years of data as reported on the DMRs revealed that no Water-Quality Based Limit was required. See the attached calculations for more information.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following most recent inspection performed for this facility.

Date – November 9, 2004
Inspector - LDEQ
Findings and/or Violations -

1. Treatment system consisted of a fenced, two-cell oxidation pond. Approximately a third or the first cell surface and the entire second cell surface were covered with duckweed.
2. Levee vegetation was being maintained. The levee system appeared to be intact.
3. Influent flow was not observed.
4. Disinfection was being provided. The four-tube chlorinator contained chlorine tablets.
5. Foul odors were not detected at the pond or effluent receiving stream.
6. BOD_5 and TSS samples were collected from the Outfall 001 discharge. Samples were light green. Lab analysis provided values of 25 ppm and 53 ppm, respectively, for BOD_5 and TSS. Permit monthly average discharge

limits for BOD_5 and TSS are 10 ppm and 15 ppm, respectively.

7. January – June, 2004, DMRs were reviewed. There were permit excursions in all the months reviewed.

B) Compliance and/or Administrative Orders

A review of the files indicates that no recent enforcement actions have been administered against this facility.

C) DMR Review

A review of the discharge monitoring reports for the period beginning April 1, 2003, through March 31, 2005, has revealed the following violations:

Parameter	Outfall	Period of Excursion	Permit Limit	Reported Quantity
TSS, Monthly Avg.	001	April 2003	15 mg/l	47.25 mg/l
TSS, Weekly Avg.	001	April 2003	23 mg/l	62.00 mg/l
Fecal Coliform, Monthly Avg.	001	April 2003	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	April 2003	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	April 2003	10 mg/l	46.0 mg/l
BOD_5, Weekly Avg.	001	April 2003	15 mg/l	57.8 mg/l
TSS, Monthly Avg.	001	May 2003	15 mg/l	60.00 mg/l
TSS, Weekly Avg.	001	May 2003	23 mg/l	60.00 mg/l
BOD_5, Monthly Avg.	001	May 2003	10 mg/l	16.1 mg/l
BOD_5, Weekly Avg.	001	May 2003	15 mg/l	16.1 mg/l
TSS, Monthly Avg.	001	June 2003	15 mg/l	20.00 mg/l
TSS, Weekly Avg.	001	June 2003	23 mg/l	26.00 mg/l
BOD_5, Monthly Avg.	001	June 2003	10 mg/l	24.1 mg/l
BOD_5, Weekly Avg.	001	June 2003	15 mg/l	26.9 mg/l
TSS, Monthly Avg.	001	July 2003	15 mg/l	34.00 mg/l
TSS, Weekly Avg.	001	July 2003	23 mg/l	36.00 mg/l
Fecal Coliform, Monthly Avg.	001	July 2003	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	July 2003	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	July 2003	10 mg/l	17.1 mg/l
BOD_5, Weekly Avg.	001	July 2003	15 mg/l	20.2 mg/l
TSS, Monthly Avg.	001	August 2003	15 mg/l	27.00 mg/l
TSS, Weekly Avg.	001	August 2003	23 mg/l	34.00 mg/l
Fecal Coliform, Monthly Avg.	001	August 2003	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	August 2003	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	August 2003	10 mg/l	15.9 mg/l
BOD_5, Weekly Avg.	001	August 2003	15 mg/l	17.8 mg/l
TSS, Monthly Avg.	001	September 2003	15 mg/l	22.00 mg/l
TSS, Weekly Avg.	001	September 2003	23 mg/l	24.00 mg/l
Fecal Coliform, Monthly Avg.	001	September 2003	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	September 2003	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	September 2003	10 mg/l	16.9 mg/l
BOD_5, Weekly Avg.	001	September 2003	15 mg/l	19.2 mg/l
TSS, Monthly Avg.	001	October 2003	15 mg/l	34.50 mg/l
TSS, Weekly Avg.	001	October 2003	23 mg/l	44.00 mg/l
BOD_5, Weekly Avg.	001	October 2003	15 mg/l	16.1 mg/l
TSS, Monthly Avg.	001	November 2003	15 mg/l	36.50 mg/l

TSS, Weekly Avg.	001	November 2003	23 mg/l	37.00 mg/l
Fecal Coliform, Weekly Avg.	001	November 2003	400 cfu/100 ml	1,160.0 cfu/100 ml
BOD_5, Monthly Avg.	001	November 2003	10 mg/l	24.5 mg/l
BOD_5, Weekly Avg.	001	November 2003	15 mg/l	29.0 mg/l
TSS, Monthly Avg.	001	December 2003	15 mg/l	53.95 mg/l
TSS, Weekly Avg.	001	December 2003	23 mg/l	65.90 mg/l
BOD_5, Monthly Avg.	001	December 2003	10 mg/l	25.6 mg/l
BOD_5, Weekly Avg.	001	December 2003	15 mg/l	30.2 mg/l
TSS, Monthly Avg.	001	January 2004	15 mg/l	51.60 mg/l
TSS, Weekly Avg.	001	January 2004	23 mg/l	64.20 mg/l
Fecal Coliform, Monthly Avg.	001	January 2004	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	January 2004	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	January 2004	10 mg/l	24.9 mg/l
BOD_5, Weekly Avg.	001	January 2004	15 mg/l	28.9 mg/l
TSS, Monthly Avg.	001	February 2004	15 mg/l	28.00 mg/l
TSS, Weekly Avg.	001	February 2004	23 mg/l	32.00 mg/l
Fecal Coliform, Monthly Avg.	001	February 2004	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	February 2004	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	February 2004	10 mg/l	18.3 mg/l
BOD_5, Weekly Avg.	001	February 2004	15 mg/l	18.6 mg/l
TSS, Monthly Avg.	001	March 2004	15 mg/l	38.00 mg/l
TSS, Weekly Avg.	001	March 2004	23 mg/l	40.00 mg/l
Fecal Coliform, Monthly Avg.	001	March 2004	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	March 2004	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	March 2004	10 mg/l	18.5 mg/l
BOD_5, Weekly Avg.	001	March 2004	15 mg/l	19.9 mg/l
TSS, Monthly Avg.	001	April 2004	15 mg/l	51.00 mg/l
TSS, Weekly Avg.	001	April 2004	23 mg/l	54.00 mg/l
Fecal Coliform, Monthly Avg.	001	April 2004	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	April 2004	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	April 2004	10 mg/l	20.7 mg/l
BOD_5, Weekly Avg.	001	April 2004	15 mg/l	24.4 mg/l
TSS, Monthly Avg.	001	May 2004	15 mg/l	52.25 mg/l
TSS, Weekly Avg.	001	May 2004	23 mg/l	57.50 mg/l
Fecal Coliform, Monthly Avg.	001	May 2004	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	May 2004	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	May 2004	10 mg/l	27.6 mg/l
BOD_5, Weekly Avg.	001	May 2004	15 mg/l	32.2 mg/l
TSS, Monthly Avg.	001	June 2004	15 mg/l	42.90 mg/l
TSS, Weekly Avg.	001	June 2004	23 mg/l	42.90 mg/l
BOD_5, Monthly Avg.	001	June 2004	10 mg/l	34.3 mg/l
BOD_5, Weekly Avg.	001	June 2004	15 mg/l	34.3 mg/l
TSS, Monthly Avg.	001	July 2004	15 mg/l	47.20 mg/l
TSS, Weekly Avg.	001	July 2004	23 mg/l	66.40 mg/l
Fecal Coliform, Monthly Avg.	001	July 2004	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	July 2004	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	July 2004	10 mg/l	16.6 mg/l
BOD_5, Weekly Avg.	001	July 2004	15 mg/l	18.2 mg/l
TSS, Monthly Avg.	001	August 2004	15 mg/l	33.85 mg/l
TSS, Weekly Avg.	001	August 2004	23 mg/l	36.30 mg/l
Fecal Coliform, Monthly Avg.	001	August 2004	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	August 2004	400 cfu/100 ml	TNTC

BOD_5, Monthly Avg.	001	August 2004	10 mg/l	25.6 mg/l
BOD_5, Weekly Avg.	001	August 2004	15 mg/l	31.6 mg/l
TSS, Monthly Avg.	001	September 2004	15 mg/l	67.10 mg/l
TSS, Weekly Avg.	001	September 2004	23 mg/l	93.10 mg/l
Fecal Coliform, Monthly Avg.	001	September 2004	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	September 2004	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	September 2004	10 mg/l	22.4 mg/l
BOD_5, Weekly Avg.	001	September 2004	15 mg/l	25.9 mg/l
TSS, Monthly Avg.	001	October 2004	15 mg/l	56.05 mg/l
TSS, Weekly Avg.	001	October 2004	23 mg/l	67.10 mg/l
Fecal Coliform, Monthly Avg.	001	October 2004	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	October 2004	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	October 2004	10 mg/l	17.8 mg/l
BOD_5, Weekly Avg.	001	October 2004	15 mg/l	23.1 mg/l
TSS, Monthly Avg.	001	November 2004	15 mg/l	45.20 mg/l
TSS, Weekly Avg.	001	November 2004	23 mg/l	48.40 mg/l
Fecal Coliform, Monthly Avg.	001	November 2004	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	November 2004	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	November 2004	10 mg/l	15.4 mg/l
BOD_5, Weekly Avg.	001	November 2004	15 mg/l	15.7 mg/l
TSS, Monthly Avg.	001	December 2004	15 mg/l	33.90 mg/l
TSS, Weekly Avg.	001	December 2004	23 mg/l	36.00 mg/l
BOD_5, Monthly Avg.	001	December 2004	10 mg/l	24.4 mg/l
BOD_5, Weekly Avg.	001	December 2004	15 mg/l	24.7 mg/l
TSS, Monthly Avg.	001	January 2005	15 mg/l	18.45 mg/l
TSS, Weekly Avg.	001	January 2005	23 mg/l	23.30 mg/l
TSS, Monthly Avg.	001	February 2005	15 mg/l	20.15 mg/l
BOD_5, Monthly Avg.	001	February 2005	10 mg/l	19.1 mg/l
BOD_5, Weekly Avg.	001	February 2005	15 mg/l	23.1 mg/l
TSS, Monthly Avg.	001	March 2005	15 mg/l	31.00 mg/l
TSS, Weekly Avg.	001	March 2005	23 mg/l	32.00 mg/l
Fecal Coliform, Monthly Avg.	001	March 2005	200 cfu/100ml	TNTC
Fecal Coliform, Weekly Avg.	001	March 2005	400 cfu/100 ml	TNTC
BOD_5, Monthly Avg.	001	March 2005	10 mg/l	30.0 mg/l
BOD_5, Weekly Avg.	001	March 2005	15 mg/l	35.3 mg/l

XII. ADDITIONAL INFORMATION:

Please be aware that the Department will be conducting a TMDL in the Lake Pontchartrain Basin scheduled for completion in 2011. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

The **Monitoring Requirements, Sample Types, and Frequency of Sampling** for this facility shall be as follows:

Effluent Characteristics	Monitoring Requirements	
	Measurement Frequency	Sample Type
Flow	1/week	Measure
BOD_5	2/month	Grab
Total Suspended Solids	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Total Environmental Solutions, Inc., Audubon Village, September 15, 2005.